

**National Asset Delivery  
Technical Surveys and Testing**

**Works Information for  
606450 - A52 Priory QMC Dunkirk MDP  
surveying  
Coring and DCP**

**CONTENTS AMENDMENT SHEET**

<b>Amend. No.</b>	<b>Revision No.</b>	<b>Amendments</b>	<b>Initials</b>	<b>Date</b>
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## 1 DESCRIPTION OF THE WORKS

### 1.1 Project objectives

1.1.1 The principle objective of this project is to undertake Coring, PAK marker testing and the potential for additional PAH testing, Dynamic Cone Penetrometer (DCP), Unbound Material Sampling (UMS) and ITSM testing at the locations stated in HE607392-KIER-VGN-A52\_ML\_160\_205\_Z-SH-CH-01 Schedules and Plans and provide subsequent reports and testing in accordance with the requirements detailed in the specification.

All works are programmed to be carried out in 3 no. shifts between 20:00-06:00. Anticipated dates on site will be between 22/03/21 and 03/04/21, dependent upon scheme programme availability and to be confirmed upon award.

1.1.2 The specification that applies to the *works* is included in Section 6.

### 1.2 Scope of works

1.2.1 The *works* to be provided under this contract are:

- (1) Coring and DCP
- (2) Pak marker testing
- (3) Reinstatement of core holes
- (4) Subsequent potential testing for PAH
- (5) Indirect tensile stiffness modulus test (ITSM) testing
- (6) Storage of cores
- (7) Disposal of cores
- (8) Coring backfill in accordance with Series 900 of MCHW. Requirements:
- (9) Fully flexible – Cold asphalt
- (10) Flexible composite – Quick set concrete with at least 180mm asphalt on top
- (11) Rigid with no asphalt surfacing - Quick set concrete
- (12) Rigid with asphalt surfacing - Quick set concrete at least 180mm asphalt on top
- (13) Note all cold asphalt is to be compacted mechanically with a Kango.
- (14) Contractor to propose the temporary traffic management they require. Once agreed Employer will provide the temporary traffic management.

### 1.3 Deliverables

1.3.1 The *Contractor* is required to produce the following deliverables:

#### **Coring**

- (1) Core logs should at least contain following information:
- (2) Core Number
- (3) Core Location (chart section, section chainage, marker post, position of core, lane, traffic direction, GPS coordinates)
- (4) Total core thickness
- (5) Thickness of each individual layer
- (6) Any missing layers
- (7) Material description of each individual layer
- (8) Condition of each individual layer (e.g. intact, voided, disintegrated, cracked, etc.)
- (9) Condition of the bonding between layers
- (10) Aggregate type of each individual layer
- (11) PAK-marker result of each individual layer as a positive or negative reaction
- (12) Nature of the material at the bottom of the core hole (e.g. crushed stone, gravel, etc.)
- (13) Photographs from a minimum of two angles
- (14) Photograph of the top of the core showing the surfacing
- (15) Photograph of core hole
- (16) All the cores should be kept for 12 months from the date of receipt of the core log for potential further required testing. They should be kept in the appropriate temperature and moisture content as per the standard laboratory practices.
- (17) All details are to be provided within a month of undertaking the surveys and supplied in electronic format. And kept by the contractor for a period of 1 year from the date of the original submission.

#### **PAH , WAC & ITSM test requirements**

- (18) Following the Pak marker testing the designer may request subsequent testing for Tar bound materials PAH 17 (USEPA 16 + Coronene) + Leachable Phenol (in line with the Adepts guidance "Managing Reclaimed Asphalt - Highways and pavements).
- (19) ITSM tests to be carried out.

**Dynamic Cone penetrometer (DCP)**

- (20) DCP result should at least contain following information:
- (21) DCP Number (same as the corresponding core number)
- (22) Location (same as coring requirements)
- (23) Hole depth below ground surface
- (24) Thickness of disturbed material (where applicable)
- (25) Layer thickness
- (26) Accumulated No. of blows
- (27) Strength (mm/blow)
- (28) Calculated CBR
- (29) CBR graph

**Unbound Material Sampling (UMS)**

- (1) Confirm the foundation material types, their layer thickness and performance properties.
  - (2) Unbound material sampling is to be undertaken through the base of the core. The UMS shall be through the Sub-base, capping & sub formation layer this is unlikely to exceed a depth of 1.5m beneath the pavement surface.
  - (3) A moisture content test is required on each individual layer.
- 1.3.2 The Contractor shall provide the results of the surveys in the format as detailed in requirement 6.1.2 of this document.

## 2 EXISTING INFORMATION

2.1.1 The Drawings listed below apply to this contract.

2.1.2 Refer to the site information for details of existing site conditions including ground conditions, limitation on access, position of existing structures etc.

Drawing Number	Title	Revision / Date
HE607392-KIER-GEN-A52_ML_160_205_Z-SK-CH-0000_01	Location Plan	P1
HE607392-KIER-VGN-A52_ML_160_205_Z-SH-CH-01	A52 Priory to QMC Resurfacing - Schedules and Plan	P1
HE607392-KIER-HGN-A52_ML_160_205_Z-SK-CH2700_01	Statutory Undertakers Sheet 1 of 6	P1
HE607392-KIER-HGN-A52_ML_160_205_Z-SK-CH-2700_02	Statutory Undertakers Sheet 2 of 6	P1
HE607392-KIER-HGN-A52_ML_160_205_Z-SK-CH-2700_03	Statutory Undertakers Sheet 3 of 6	P1
HE607392-KIER-HGN-A52_ML_160_205_Z-SK-CH-2700_04	Statutory Undertakers Sheet 4 of 6	P1
HE607392-KIER-HGN-A52_ML_160_205_Z-SK-CH-2700_05	Statutory Undertakers Sheet 5 of 6	P1
HE607392-KIER-HGN-A52_ML_160_205_Z-SK-CH-2700_06	Statutory Undertakers Sheet 6 of 6	P1

Table 1: Scheme Drawings

### **3 CONSTRAINTS ON HOW THE CONTRACTOR PROVIDES THE WORKS**

#### **3.1 General**

- 3.1.1 The *Contractor* Provides the Works in such manner as to minimise the risk of damage or disturbance to or destruction of third party property.
- 3.1.2 The *Contractor* complies with the constraints and meets with the requirements outlined in Appendix 6.
- 3.1.3 The *Contractor* submits information detailing how the *Contractor* will provide the Works to the *Employer* prior to the *works* commencing. This information will include any lifting plans, risk assessments, method statements, the *Contractor's* staff training information and any other relevant Health and Safety requirements.

#### **3.2 Working hours & site specific constraints**

- 3.2.1 The *Contractor's* working hours for site works shall be within the provided roadspace (requiring liaison between Contractor and Principal Contractor) beginning 22/03/2021 (tbc) at 20:00 and ends on 03/04/2021 (tbc) at 06:00.
- 3.2.2 Refer to environmental assessment.

#### **3.3 Health, Safety and Environment & Risk Management**

##### Health and Safety requirements

- 3.3.1 In Providing the Works the *Contractor* meets the requirements of Annex 2 of the supplementary constraints in relation to health and safety duties.
- 3.3.2 When implemented, the *Contractor* shall comply with the requirements of Highways England's safety passport scheme and ensure that all of his employees, and any of his subcontractor's, are registered in accordance with the implementation of the scheme. Details on the scheme can be found here: <http://www.highwayssafetyhub.com/safety-passport.html>
- 3.3.3 For details of the CDM duty holders, refer to the pre-construction information which can be found in Appendix 3.
- 3.3.4 Before commencing the construction phase of the *works*, the *Contractor* confirms to the *Employer* that adequate welfare facilities are in place. Where the facilities detailed in section 5 are not deemed adequate, the *Contractor* provides all necessary facilities to Provide the Works and to comply with the minimum requirements set out in HSE guidance document L153.

##### Environmental requirements

- 3.3.5 In Providing the Works the *Contractor* meets the requirements of Annex 2 of the supplementary constraints in relation to environmental duties.

Risk Management

- 3.3.6 The *Contractor* identifies, manages and mitigates risks in accordance with the principles of ISO31000.
- 3.3.7 The *Contractor* submits a risk register, which captures all risks associated with the delivery of the *works* including those identified by the *Employer*, with his tender and maintains it for the contract period.

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#### 4 REQUIREMENTS FOR THE PROGRAMME

- 4.1.1 The *Contractor* submits programme to the *Employer* with his tender.
- 4.1.2 The *Contractor* Provides the Works taking into account the following programme constraints:
- (i) the *starting date* (22/03/21 @ 20.00) and latest *completion date* (03/04/2021 @ 6.00) and any post site works, reporting and review period
  - (ii) The services and other things provided by *Employer* (see Section 5)
- 4.1.3 The programme should be in the form of an activity and time related bar chart, produced as a result of a critical path analysis.
- 4.1.4 The programme should preferably be provided in either a PDF or MS Excel format and cover the full contract period including post site activities. Activities should be clearly defined and named and the programme should detail the following:
- (i) dates and times associated with the project, including the *starting date*, *completion date* & *Contractor's* planned completion, and any other dates or times that will specifically impact the delivery of the project
  - (ii) activities associated with delivering the project
  - (iii) Programme of works
  - (iv) Working Hours shall be 20:00 – 06:00
  - (v) Weekend working is allowed for
  - (vi) All Traffic management is subject to traffic count taken on the night of the works.
  - (vii) The Principal Contractor is to ensure welfare facilities are to be in place prior to works commencing on site.
  - (viii) The *Contractor* is to allow for a prestart meeting on a date TBC, to develop the programme.
  - (ix) Survey results are expected to be returned within two weeks of the survey completing on site
- 4.1.5 The *Contractor* updates the programme every week. The *Contractor* submits an updated programme to the *Employer* upon request
- 4.1.6 Given the size of the site it is anticipated that several survey operations can be carried out simultaneously. The principal contractor is to programme the site works accordingly to minimize the programme which requires close liaison between PC and individual surveying contractors.

## 5 SERVICES AND OTHER THINGS PROVIDED BY THE *EMPLOYER*

5.1.1 The following temporary traffic management will be provided by the *Employer* to allow the *Contractor* to Provide the Works:

(1) Temporary Traffic Management will be provided by others under the CWF by HW Martin, contact: Gary Taylor (077855416982). The Traffic Management is expected to consist of night-time traffic lights on the A52 at each site location and full road closure with ring management on the islands and lane closures on the approaches, *Contractor* to confirm at pre-start meeting of this strategy suitability.

(1) *Contractor* to liaise with *Employer* regarding the Temporary traffic management they require to carry out the works.

(2) *Contractor* is to liaise with the *Employer* regarding access to site. *Contractor* is to communicate any access issues and how these may affect the work.

5.1.2 Road space on Highways England network is to be managed by the Principal Contractor.

5.1.3 The other things that will be provided by the *Employer* are as follows:

(1) Welfare facilities are to be provided by the Principal Contractor (HW Martin), needs are to be identified by the *Contractor* and communicated with the Principal Contractor.

(2) Desktop search for utility information (Type D) survey. This information will be provided to the *Contractor* at the pricing stage.

## 6 SPECIFICATION FOR THE WORKS

- 6.1.1 The *Contractor* shall undertake the works in accordance with National AD Technical Surveys & Testing contract documentation as well as the additional requirements:
- 6.1.2 Coring Surveys in accordance with CS229 section 6
- 6.1.3 Dynamic Cone Penetrometer (DCP) in accordance CS229 Section 6
- 6.1.4 UMS (Unbound material sampling) in accordance to BS 5930:2015. Moisture Content tests to BS 1377-2 (partially superseded by BS EN ISO 17892-1 and BS EN ISO 17892-2) and BS 812-109
- 6.1.5 PAH 17 (USEPA 16 + Coronene) + Leachable Phenol (in line with the Adepts guidance "Managing Reclaimed Asphalt - Highways and pavements).